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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/501,492	07/13/2004	Lorenz Kopp	B-7195	8280

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Frank J Bonini Jr  
Harding Earley Follmer & Frailey  
Post Office Box 750  
Valley Forge, PA 19482-0750

EXAMINER

KOCH, GEORGE R

ART UNIT PAPER NUMBER

1734

DATE MAILED: 07/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/501,492

Applicant(s)

KOPP, LORENZ

Examiner

George R. Koch III

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1734

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 02 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) 13-22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments, see remarks, filed 5/02/06, with respect to the rejection(s) of claim(s) 1-12 under Schneider or Schneider and Huang have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Schneider and Haas, which discloses the adjusting structures claimed.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. Claims 1-12 are additionally rejected under 35 U.S.C. 103(a) as being unpatentable over Schneider (DE 197 17 511 A1, submitted with the IDS filed 12/21/20045) in view of Haas (DE 38 42 835 A1)

Schneider discloses a conveyorized horizontal processing line for wet processing a workpiece comprising at least one respective transport member (rollers visible in the Figures), extending in a horizontal direction of transport, at least one processing facility (bath 1), which forms one structural component (Transport und Fuhrungselemente - items 2) above the conveying path.

Schneider does not disclose at least one adjusting device to raise and lower a structural component.

However, Haas discloses at least one adjusting device (the raising device recited in the abstract) to raise and lower a structural component, which provides adjustment of the nip of the rollers. Huang discloses that these elements take into account the "thickness of the objected to be treated". (Abstract). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have utilized such adjusting devices in order to take into account the thickness of the objects to be treated.

As to claim 2, Schneider as modified by Haas is capable of maintaining the spacing substantially even.

As to claim 3, Schneider discloses a thickness sensor (Dickensensor or thickness sensor 8).

As to claim 4, Schneider discloses one sensor at the entrance region (items 6 - i.e., Einweglichtschranke, translates to "One-way light barrier")

As to claim 5, Schneider discloses a memory (Anlagensteuerung or control 12).

As to claim 6, the sensors and control of Schneider in combination with Haas are capable of being used to control the height of the structural component (thickness sensor 8, light barrier sensor 6, and away sensor 9, plus control 12).

As to claim 7, Haas discloses a slots as claimed for the adjusting device (see Figure 1 - the gap between elements 2 are the slots). Haas also discloses a hydraulic/pneumatic adjusting device (Figure 2, item 22) and eccentrically driven shaft - items 20/24).

As to claim 8 and 9, Schneider discloses a pump (Pumpe 16) and nozzles (Dusenspeiseleitung 19) as claimed.

As to claim 10, the transport rollers of Schneider and Haas work on the same substrate and have the same shape as the transport rollers in the Figures, and thus have an elongated shape.

As to claim 11, Haas as incorporated discloses slots (see Figure 1 - the gap between elements 2 are the slots)

As to claim 12, Schneider discloses lateral transport rollers and transport rolls mounted on an axis (items 2).

5. Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schneider and Haas as applied to claims 1 above, and further in view of applicant's admitted prior art (pages 1-4).

Schneider does not disclose flow nozzles, anodes or cathodes.

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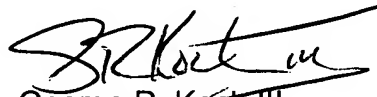
However, the admitted prior art, in the discussion of DE 32 36 545 A1 on page 2, discloses that anodes are known for processing. The admitted prior art also discloses that the opposite (using cathodes) can occur (see page 1, line 29 to page 2, line 2). The admitted prior art also discloses processing facilities such as flow nozzles, penstocks and heating devices (page 1, lines 22-23). The admitted prior art suggests that these facilities are interchangeable. One in the art would appreciate that such operations improve the quality of the circuit board. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have utilized such processing facilities in order to improve the quality of the circuit board.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to George R. Koch III whose telephone number is (571) 272-1230 (TDD only). If the applicant cannot make a direct TDD-to-TDD call, the applicant can communicate by calling the Federal Relay Service at 1-866-377-8642 and giving the operator the above TDD number. The examiner can also be reached by E-mail at [george.koch@uspto.gov](mailto:george.koch@uspto.gov) <<mailto:george.koch@uspto.gov>> in accordance with MPEP 502.03. The examiner can normally be reached on M-F 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Fiorilla can be reached on (571) 272-1187. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



George R. Koch III  
Primary Examiner  
Art Unit 1734

GRK  
7/20/2006